

[0033]

(Shared file reference table)

The shared file reference table 12 is reference information for realizing functions where each computer in the network system of this embodiment distributes and exchanges the shared file 50. The shared file reference table 12 has a configuration as shown in FIG. 2. Each shared file (four types of files are assumed here) is configured of a file name, data format, data size, content description, generation time, update time, original file owner name, the network address and port number of a computer which stores an original file or a copy of the original, a flag which shows whether if the file is an original or a copy, and a deletion flag for setting the original file or its copy as invalid.

[0034]

FIG. 2 shows that the relationship between respective items with the same file names, as indicated by arrows, is an original file and its copy data. In other words, for example, the shared file name "CHAP-1" is present both in the original file (the original flag is TRUE) stored in the computer with the network address of "192.168.1.1", and in its copy data (the original flag is FALSE) stored in the computer with the network address of "192.168.1.2".

[0073]

(Deletion process of shared files)

It is desirable to delete unnecessary files to facilitate file exchanges between users and to increase the efficiency of a computer memory. In this file deletion process (that is, the invalidation of shared files), as shown in FIG. 2, the deletion flag item in the shared file reference table 12 is used. Also, file deletion is normally performed after the deletion message identification of a user is transmitted to the file sharing control function unit 13.

[0074]

Specifically, if a shared file F stored in the computer 100A is deleted, the

file sharing control function unit 13 deletes the file F from the storage device via the file storage control function unit 10. Subsequently, the file sharing control function unit 13 sets the deletion flag in the shared file reference table 12 to ON (TRUE) and distributes the shared file reference table 12 to other computers (100B, 100C and 100D) through an exchange function.

[0075]

Meanwhile, the other computers (100B, 100C and 100D) set the deletion flag in the reference information for the file F registered in the individual shared file reference table or its copy Fc to ON (TRUE) according to the shared file reference table 12 received from the computer 100A. If the copy Fc is stored in the individual storage devices, the copy file is deleted by the file storage control function unit 10. Note that the file display item can be deleted from a file list displayed on the display screen or an indication that the file is deleted can be displayed on the file list by user interface function unit 14 of respective computers in accordance with the deletion flag of the reference information.

**FIG. 2**

共有ファイル名 Shared file name

データ形式 Data format

サイズ Size

内容説明 Content description

生成時刻 Generation time

更新時刻 Update time

所有者名 File owner name

ネットワークアドレスポート番号 Network address port number

オリジナルフラグ Original flag

削除フラグ Deletion flag

FIG.2

(図2)

No.	共有 ファイル名	データ 形式	内容説明	生成時刻	更新時刻	所有者名	初回アクセス IPアドレス	初回アクセス 時刻	削除 時刻
1	CHAP-1	TEXT	Text of Chap1	2000/12/04 11:30	2000/12/04 11:30	USER-A	192.168.1.1	TURE	FALSE
2	CHAP-2	TEXT	Text of Chap2	2000/12/03 23:50	2000/12/03 23:50	USER-B	192.168.1.2	TURE	FALSE
3	FIGURE-1	JPEG	Fig of Chap1	2000/12/04 14:20	2000/12/04 14:20	USER-A	192.168.1.1	TURE	FALSE
4	FIGURE-2	SVG	Fig of Chap2	2000/12/01 18:05	2000/12/01 18:05	USER-B	192.168.1.2	TURE	FALSE
5	CHAP-1	TEXT	Text of Chap1	2000/12/04 11:30	2000/12/04 11:30	USER-A	192.168.1.2	FALSE	FALSE
6	CHAP-2	TEXT	Text of Chap2	2000/12/03 23:50	2000/12/03 23:50	USER-B	192.168.1.1	FALSE	FALSE
7	FIGURE-1	JPEG	Fig of Chap1	2000/12/04 14:20	2000/12/04 14:20	USER-A	192.168.1.2	FALSE	FALSE
8	FIGURE-2	SVG	Fig of Chap2	2000/12/01 18:05	2000/12/01 18:05	USER-B	192.168.1.1	FALSE	FALSE